<u>REMARKS</u>

Claims 2-18, 20-32, 34, and 35 are currently pending in the present application and are presently under consideration. Claims 2 and 29 have been amended herein. All pending claims with status identifiers are located at pages 2-8.

Favorable reconsideration is requested in view of the comments and amendments below.

I.   <u>Rejection of Claim 32 under 35 U.S.C. §102(e)</u>

Claim 32 stands rejected under 35 U.S.C. §102(e) as being anticipated by Paatelma (US 6,463,042 B1). Withdrawal of this rejection is respectfully requested for at least the following reasons. Paatelma does not disclose each and every element of applicant's invention as recited in this claim.

> For a prior art reference to anticipate, 35 U.S.C. §102
> requires that "each and every element as set forth in the
> claim is found, either expressly or inherently described, in a
> single prior art reference." *In re Robertson*, 169 F.3d 743,
> 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (*quoting
> Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631,
> 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)).

In particular, Paatelma does not disclose, teach, or suggest *means for determining transmission power levels of a first and second portion... of a data packet... based on a desired transmission range for both the first and second portion* as recited in claim 32. The present invention as claimed facilitates providing a uniform transmission range to a data packet, wherein the data packet is transmitted in portions associated with disparate data rates. For example, an IEEE 802.11 packet includes a preamble portion, a header portion, and a data portion, which are each delivered at different data rates. At a fixed transmission power, these different portions have disparate transmission ranges. By *determining transmission power levels of a first and second portion... based on a desired transmission range for both the first and second portion,* the present invention as claimed can provide a uniform transmission range for two or more portions of the data packet that are delivered at disparate data rates. For instance, the present invention as

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claimed can calculate a desired transmission range for an entire data packet, and thereafter *dynamically adjust the transmission power level* of disparate portions within the data packet to effectuate such desired *transmission range.*

     In contrast, Paatelma discloses a system for reducing power in a data packet between a header portion and a data portion, wherein such power reduction occurs when the data portion consists of invalid data. The Examiner cites col. 2, lines 32-41 of Paatelma as disclosing a *means for determining transmission power levels of a first and second portion... of a data packet... based on a desired transmission range for both the first and second portion* as recited in this claim. However, <u>nowhere</u> in such section of Paatelma exists a disclosure, teaching, or suggestion of the above claim element. The cited portion of Paatelma is reproduced below for clarification purposes.

> A method is disclosed for operating a wireless terminal in a wireless communication system that operates with frames time divided into slots each having a Header portion followed by a Data portion. The system is arranged to transmit a downlink slot so that the Header portion is transmitted at a higher power level than the Data portion when the Data portion does not contain valid data so as to reduce system interference.

Such a power reduction between the Header portion and the Data portion is undertaken to reduce system interference, and to further reduce power consumption at a receiving device/terminal. There is <u>no indication</u> in the above passage, however, that transmission power levels of the Header portion and Data portion are determined *based on a desired transmission range for both the first and second portion.* Rather, Paatelma <u>nowhere</u> discloses that a *transmission range* is taken into account when altering transmission power between the Header portion and the Data portion – of sole importance is that a receiving device can detect such power alteration and thereafter terminate reception of the transmission and enter into a reduced power-consumption state. Again, there is <u>no</u> <u>mention or suggestion</u> of *determining transmission power levels of a first and second portion... of a data packet... based on a desired transmission range for both the first and second portion* as claimed. Accordingly, this rejection should be withdrawn.

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II.   Rejection of Claims 29-31 under 35 U.S.C. §103(a)

Claims 29-31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Paatelma in view of Fischer, *et al.* (US 5,768,695). This rejection should be withdrawn for at least the following reasons. Claim 29 has been amended herein to include a limitation not taught be either Paatelma or Fischer, *et al.*

> To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See* MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *See In re Vaeck,* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In particular, neither Paatelma nor Fischer, *et al.* teach or suggest a *dynamic adjustment of transmission power made to facilitate transmitting a PLCP preamble and a data portion over a substantially similar transmission range* as recited in independent claim 29. As described *infra,* Paatelma discloses detecting when a header of a data packet is transmitted at a disparate power level than a data portion of the data packet. Paatelma also teaches that this detection is utilized when a Quasi-Discontinuous Transmission (Q-DTX) mode of operation is utilized. *See* col. 2, lines 41-54. Thus, power is reduced in a transmission when the data portion does not include valid data. *See* col. 3, lines 36-41. However, Paatelma <u>never</u> discloses that power between a Header portion and a Data portion is completed *to facilitate transmitting the* Header portion *and the* Data portion *over a substantially similar transmission range* as claimed.

Fischer, *et al.,* like Paatelma, does not teach or suggest such *dynamic adjustment of transmission power made to facilitate transmitting a PLCP preamble and a data portion over a substantially similar transmission range.* Rather, Fischer, *et al.* discloses

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a system and/or methodology for ramping up and ramping down power to various sections of a radio in a wireless network. A PLCP frame format defined by IEEE standard 802.11 is disclosed as an exemplary frame format that can be utilized to transfer data between a MAC device and a radio, but Fischer, *et al.* does not disclose altering power between portions of such format (and thus cannot disclose, teach, or suggest that transmission power is adjusted to facilitate transmitting a PLCP preamble and a data portion over a substantially similar transmission range).

In view of at least the above, it is respectfully requested that the rejection of claim 29 (and claims 30-31, which depend therefrom) be withdrawn.

III.   Rejection of Claims 2-5, 7-8, 18, 20-28, and 34-35 under 35 U.S.C. §103(a)

Claims 1, 7-8, 18-19, 21-28, 32-33, and 35 stand rejected under 35 U.S.C. §102(a) as being unpatentable over Paatelma in view of Hassan, *et al.* (US 6,463,042 B1). Withdraw of this rejection is respectfully requested for at least the following reasons. Neither Paatelma nor Hassan, *et al.* teach or suggest each and every limitation of the applicant's invention as recited in the subject claims.

Particularly, with respect to claim 2, Paatelma and Hassan, *et al.* do not disclose, teach, or suggest *a communication unit that transmits a first portion of a data packet at a first data rate and a second portion of the data packet at a second data rate* as recited in this claim. As discussed *infra*, Paatelma discloses detecting when a Data portion is transmitted at a lower power level when compared to a Header portion of a data packet. The invention of Paatelma is beneficial when a Quasi-Discontinuous Transmission mode of operation is employed by a base station to lessen interference within a network. The Examiner concedes that Paatelma does not disclose that such data portion and header portion are *transmitted at a first data rate and a second data rate* as claimed.
To make up for this deficiency, the Examiner cites col. 2, lines 17-27 of Hassan, *et al.* as disclosing the aforementioned claim element(s). Hassan, *et al.*, like Paatelma, however, does not disclose, teach, or suggest *a communication unit that transmits a first portion of a data packet at a first data rate and a second portion of the data packet at a second data rate* as recited in this claim. In particular, Hassan, *et al.* teaches delivering a first portion of data (which includes a plurality of data packets) at a first data rate and

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delivering a second portion of data (which also includes a plurality of data packets) at a second data rate. Col. 2, lines 17-27 of Hassan, *et al.* are produced below.

> The system also includes a communication controller which, in response to the reply from the first satellite, apportions the data into first and second data portions. The transmitter establishes a first communication link with the first satellite to transmit the first data portion to the first satellite as the second data rate and, while maintaining the first communication link, establishes a second communication link with the second satellite to transmit the second data portion to the second satellite at a third data rate (which, when summed with the second data rate equals the first data rate).

Hassan, *et al.* later clarifies this passage by illustrating a data packet (*See* Fig. 2) that can be utilized and clearly stating that it is data packets, and not *portions of data packets*, that are transmitted at a variety of data rates. "To overcome congestion at a single satellite, a terminal designed in accordance with the principles of the present invention transmits its data packets to at least two of the satellites in range of the terminal." *See* col. 7, lines 61-64. Nowhere is there any teaching or suggestion that the first and second portions of data disclosed in col. 2, lines 17-27 of Hassan, *et al.* are first and second portions *of a data packet* as recited in this claim. To further illustrate this point, operation of the invention disclosed in Hassan, *et al.* would be adversely affected if data packets were partitioned and delivered at different data rates. In particular, the data packet disclosed in Hassan, *et al.* (*See* Fig. 2) includes a packet address that contains directions relating to where the data packet is to be delivered, and further includes a payload (a data portion) which is to be delivered to a particular satellite. If the packet address is separated from any portion of the data packet, other portions of such packet will not include directions on where the data is to be delivered. Similarly, additional data must be added to portions of the data packet to enable such portions to be re-grouped upon receipt by a destination address. Data packets can be easily re-organized due to sequence numbers or the like existent within a header. If data packets are partitioned, sequence numbering or other identifiers must be associated with the portions of the data packets to re-organize such packets, and thereafter disparate data packets must be re-organized in a specific sequence.

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Regarding claims 20 and 35, neither Paatelma nor Hassan, *et al.* disclose, teach, or suggest *transmitting a third portion of the data packet at a third transmission power level* as recited in such claim. The Examiner cites the above-reproduced passage of Hassan, *et al.* (col. 2, lines 17-27) and a related section (col. 2, lines 55-62) as teaching such claim element. As can be clearly seen from reading such passages, however, Hassan, *et al.* teaches <u>nothing</u> relating to transmission power of a message. Rather, as described above, Hassan, *et al.* discloses a system for transmitting a collection of data packets at disparate rates to consume a maximum amount of bandwidth relating to a plurality of satellites.

With respect to claims 34, such claim depends upon claim 32, and Hassan, *et al.* does not make up for the aforementioned deficiencies with respect to such claim. Accordingly, claim 32 is believed to be in condition for allowance, rendering the rejection of claim 34 moot.

Accordingly, in view of at least the above, applicant's representative respectfully requests that the rejection of claims 2 and 20 (and claims 3-5, 7-8, 18, 21-28, which respectfully depend therefrom), as well as claims 34-35, be withdrawn.

IV.   Rejection of Claims 6 and 9-17 under 35 U.S.C. §103(a)

Claims 6 and 9-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Paatelma in view of Hassan, *et al.*, and further in view of Fischer, *et al.* Withdrawal of this rejection is respectfully requested for at least the following reasons. Claims 6 and 9-17 depend upon claim 1, which is believed to be in condition for allowance, rendering this rejection moot.

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CONCLUSION

The present application is believed to be condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

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